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Activity 1 – Database Relationships Questions

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The Publishing Company

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Task Scenario

- You have been asked to create a database for the East Berkshire Publishing Company
- Currently all records are stored on a spreadsheet
- The Company would like to be able to store information about their books
- The Company would like to be able to report on how their books are published

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Task Scenario

The database will record information about:

Authors

Titles

Editions

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Task Scenario

- An edition is the actual physical copy of a book, for which they need to record the:
- type of book
- publication date
- edition number
- number of copies sold and price.
- The book type can be hardback, paperback or audio
- The company wants the flexibility to add new book types
- There must always be at least one edition of a book sold

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Task Scenario

When an edition sells between:

2000 –4999 copies it is bronze edition

5000 – 10,000 copies it is silver edition

Over 10,000 copies it is a gold edition

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Task Scenario

When a first print run is sold out (EditionNumber = 1), a second print run is done and these books are EditionNumber = 2

Books cannot be published before 01/07/2020

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The Data

EditionID	AuthorID	BookID	Publication Date	Book Title	Book Type ID	Book Genre	Author Name	Edition Number	Number of Copies	Book Type	Price
200	11	71	01/07/2020	Flowers	1	Thriller	Smith	1	1000	Hardback	£10

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Step 1 – Identify The Primary Keys

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Step 1 – Identify the Primary Keys

- What can we see from the supplied data?
- There is an EditionID
- There is an AuthorID
- There is a BookID
- There is a BookTypeID

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Step 1 – Identify the Primary Keys

THESE MUST BE PRIMARY KEYS

THAT MEANS WE HAVE **AT LEAST 4** TABLES

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Step 1 – Identify the Primary Keys

Key	Table
EditionID	tblEdition
BookID	tblBook
AuthorID	tblAuthor
BookTypeID	tblBookType

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Glossary of Terms

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Glossary – Relational Database 1

Key Term	Definition
Attribute	Another name for a Column (or Field) in a Table in a Database.

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Glossary – Relational Database 2

Key Term	Definition
Entity Relationship	How data inside one Table is linked to data inside another Table in the same database. Relationships can be one:one, one:many and many:many.

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Glossary – Relational Database 3

Key Term	Definition
Candidate Key	When you have identified some columns that MIGHT be a good Primary Key.

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Glossary – Relational Database 4

Key Term	Definition
One to One relationship	When a Record in one table has a match with one **AND ONLY ONE** Record in another table. The Record in the second table matches one **AND ONLY ONE** Record in the first Table.

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Glossary - Normalisation

Key Term	Definition
Cascading Update	When any Updates made in one Table are reflected in other Tables that are Joined by a Foreign Key.

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Glossary – SQL

Key Term	Definition
Query	The process of asking a Database a question to get a specific answer.

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